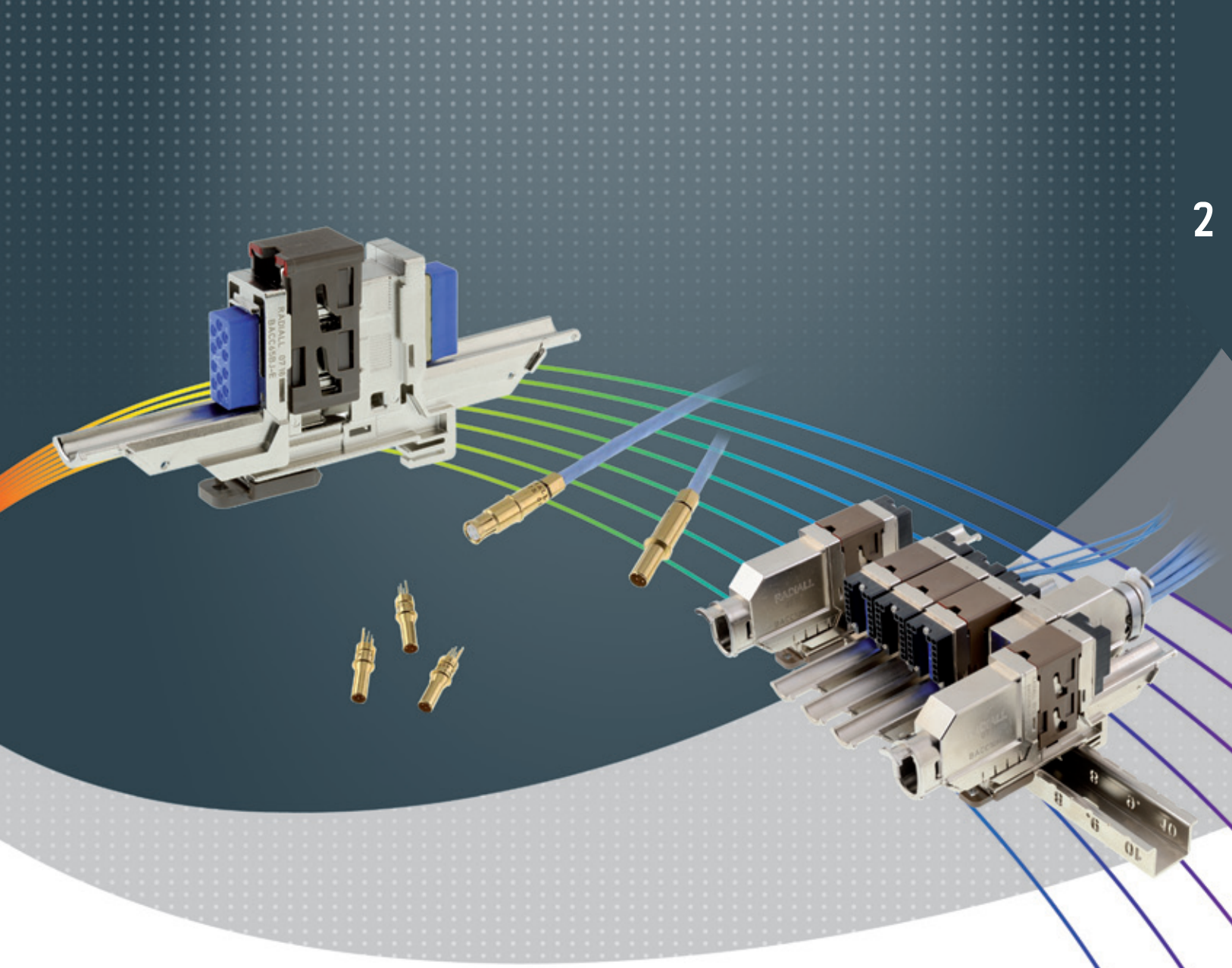


Quick Multipin series

RADIALL
The next conneXion

CONTENTS

Page

Introduction 2-4
Application 2-5
Product overview 2-5
Electrical characteristics 2-6
Mechanical and environmental characteristics 2-7
How to order EPX insert 2-8
Inserts layouts 2-9
Inserts table 2-10
How to order QM shell 2-11
Connector dimensions 2-11
Mated shell dimension 2-12
How to order QM mounting device 2-13
Mounting device dimensions L-Brackets 2-14
QM rail global range for single sided mounting device 2-15
Mounting device dimensions 04S, 06S, 08S, 10S & 15S single sided rail ..... 2-16 & 2-17
Mounting device dimensions 18 single sided rail 2-18
Mounting device dimensions 22 single sided rail 2-19
Mounting device dimensions double sided rail 2-20
Polarization code 2-21

CRIMP CONTACTS

Signal and power 2-22
Coaxial 2-23
Twinax and triax 2-24
Quadrax & BMA 2-25

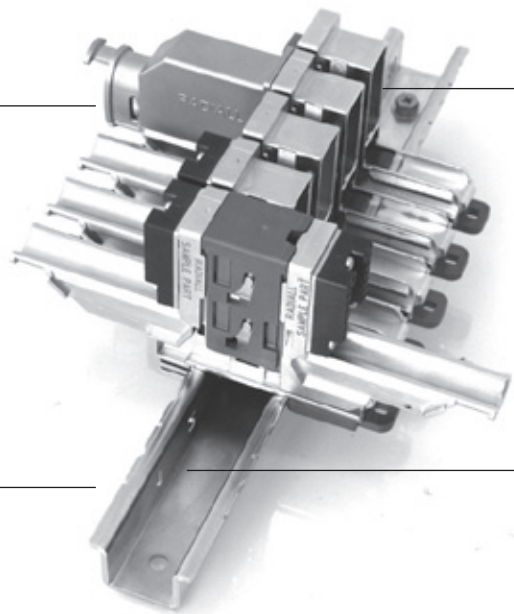
Luxcis® fiber optic inserts and termini 2-26
Tooling and accessories 2-27
Products range extensions 2-28

INTRODUCTION

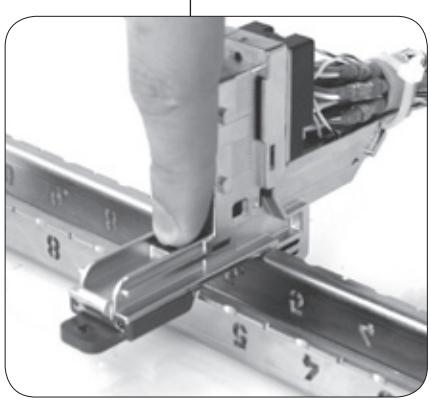
A MODULAR TOOL-LESS INSTALLATION MULTIPIN CONNECTOR

Radiall QM series connectors have been designed for use with in-line disconnect applications on commercial airplanes.
QM connectors offer outstanding electrical performance and are designed with environmental and mechanical characteristics that provide for long lasting durability needed for the most sever aerospace applications.
The QM series offer a wide range of inserts solutions and a large variety of contacts.
QM series is designed according to BPS-C-212 technical specifications and manufactured under US patent App, No. 11/614.642.
User manual MIIN1700000 is available upon request.

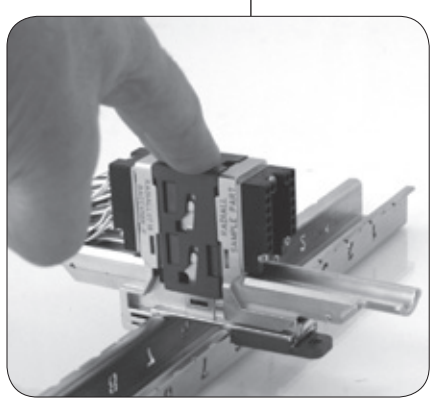
FEATURES & BENEFITS



User friendly - no tool needed



Click to install



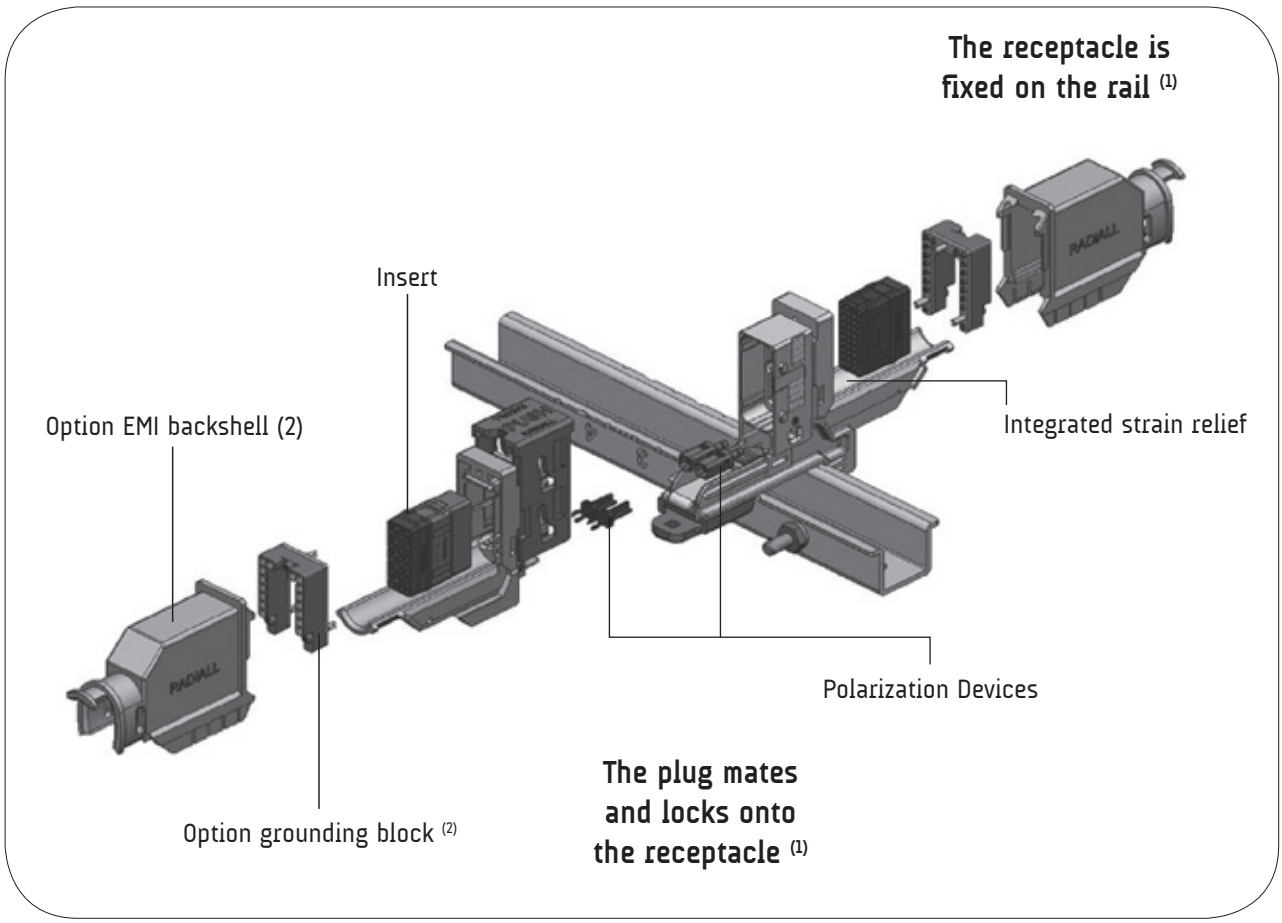
Push to lock

APPLICATIONS

Interconnect solution for aerospace and harsh environment applications.

PRODUCT OVERVIEW

View of receptacle and plug connectors on rail


The receptacle is fixed on the rail (1)
Insert
Option EMI backshell (2)
Integrated strain relief
Polarization Devices
Option grounding block (2)
The plug mates and locks onto the receptacle (1)

NOTES:
(1) Please refer to our user manual MIIN1700000 to have detailed mounting instructions of the QM on the rail.
(2) EMI backshell and ground block are not compatible

ELECTRICAL CHARACTERISTICS

Contacts are per EN3155-76 and EN3155-77. Electrical characteristics conform to SAE AS 39029 (MIL-C-39029 type A).

GROUND BLOCK CONTACT

	Contact with wire size	Max Current Amps
Contact to contact	Contact + AWG20	7.5
Contact to mounting surface	Contact + AWG20	7.5

CONTACTS

Contact size	Wire size	Max Current Amps
22	AWG22	5
	AWG24	3
	AWG26	2
20	AWG20	7.5
	AWG22	5
	AWG24	3
16	AWG16	13
	AWG18	10
	AWG20	7.5
12	AWG12	23
	AWG14	17
	AWG16	13
8	AWG8	46
	AWG10	33
5	AWG8	46 — See note 1
	AWG10	33

Note 1: Size 5 contacts are not part of SAE AS 39029 (MIL-C-39029 type A). They are qualified by Radiall to 46 Amps.

EMI SHIELDING EFFECTIVENESS

Frequency (MHz)	Leakage attenuation (dB)
100	65
200	63
300	61
400	59
500	58

DIELECTRIC WITHSTANDING VOLTAGE EIA 364-20 (MIL-STD-1344 / Method 3001.1) with leakage current ← 1m Ω

Level	Environmental inserts Voltage (VRMS)	Non-environmental voltage (VRMS)
Sea level	1500	1500
50 000 feet	800	600
70 000 feet	800	300

INSULATION RESISTANCE EIA 364-21 (MIL-STD-1344 / Method 3003.1)

Temperature	Insulation resistance
Ambient temperature	> 5000 M Ω
155°C (+347°F)	>200 M Ω

OTHER CHARACTERISTICS

- **Shell to shell conductivity** < 2.5 m Ω, operating voltage: 400 Vrms or 500 Vdc at sea level.
- **Voltage stability (ground block):** Maximum variation 4mV SAE AS 81714 (MIL-T-81714).
- **Magnetic permeability** < 2 µ and comparative tracking index = 250 V.

MECHANICAL AND ENVIRONMENTAL CHARACTERISTICS

MECHANICAL CHARACTERISTICS

MATING/ UNMATING: up to 50 cycles

VIBRATION AND SHOCK

Shell type	Material	Vibration	Shock
		for 5 hours in each of the 3 axis/interruption < 1µs EIA 364-28 (MIL-STD-1344 /Method 2005.1)	three shocks in each axis EIA 364-27 (MIL-STD-1344 /Method 2004.1) condition A
QM	Composite	4 positions rail = Acceleration 13,8 Grms 0,2G²/Hz from 10 to 400HZ and 0,03G²/hz from 400 to 2000Hz	4 positions rail = Shock amplitude 50g / duration 11ms
		22 positions rails = Acceleration 6,2 Grms 0.04 g²/Hz from 10 to 400 Hz 0.006 g²/Hz at 2000 Hz	22 positions rail = Shock amplitude 15G / duration 11ms

Interruption < 1µs - on electrical contacts
- between shells
- between shel and rail

RETENTION CHARACTERISTICS

Contact retention EIA 364-29 (MIL-STD-1344 / Method 2007.1) on terminated connectors.

Contact size	Retention force	Max displacement
Ground block	88N (20lbs)	0.30mm (.012 in.)
22	53.4N (12lbs)	0.38mm (.015 in.)
20	89N (20 lbs)	0.38mm (.015 in.)
16	111.2N (25lbs)	0.38mm (.015 in.)
12	133.45N (30lbs)	0.38mm (.015 in.)
8	133.45N (30lbs)	0.38mm (.015 in.)
5	133.45N (30lbs)	0.38mm (.015 in.)

- **Insert retention:** 400N (90lbs) (EIA 364-35 = MIL-STD-1344 /Method 2010.1)
- **Max displacement:** 0.30mm (.012 in.)

ENVIRONMENTAL CHARACTERISTICS

TEMPERATURE

- **Temperature range:** -65° / +155°C
- **Temperature life:** 1000H at 155°C

OTHER CHARACTERISTICS

- **Salt spray:** 96 hours (Nickel plating) EIA 364-26 (MIL-STD-1344 / Method 1001.1) test condition A
- **Humidity:** 10 days with temperature variation from -10°C to +65°C EIA 364-31 Method 4, test condition B (MIL-STD-1344 /Method 1002.2, type II test condition)
- **Altitude immersion:** 3 cycles at 50 000 feet EIA 364-03 (MIL-STD-1344 /Method 1004.1)
- For more detail please refer to **QM product specification**.

HOW TO ORDER EPX INSERT

EPXB	E	40	P	A	S

Series [1&2]

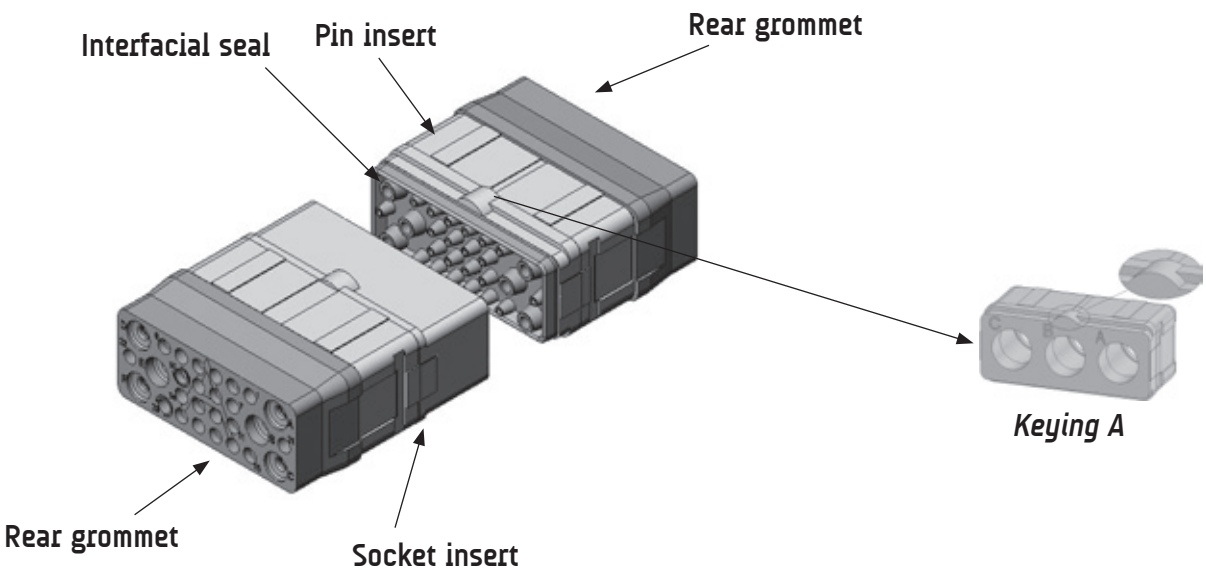
Class
E: Environmental with rear grommet and interfacial seal for pin inserts
Environmental with rear grommet for socket inserts
H: Insert for pin contacts with a rear grommet and without interfacial seal

Insert arrangement
Refer to table on page 2-9 for inserts name

Contact type
P: Pin
S: Socket

Insert keying
A: insert with keying A

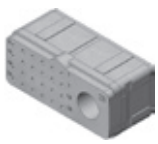
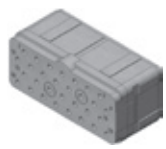
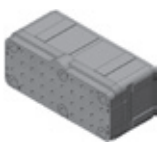
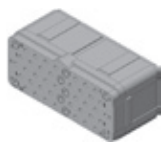
Contact
Without code: insert delivered without contacts
S: all crimped contacts for signal and power are included



NOTES:
(1) Inserts are designed for rear release & rear removable contacts.
(2) Pin and socket inserts can be installed in either plug or receptacle shell.

EPXB INSERTS ARRANGEMENTS

The full range of EN4644 insert arrangements is available.
All inserts are delivered without contacts. Contacts have to be ordered separately.

0 Dummy insert	**C3** 3 x size 5 contacts	**P3** 3 x size 5 Power	**3Q3** 3 x size 8 Quadrax
06 6 x size 12 contacts	**10Q2** 8 x size 20 contacts 2 x size 8 Quadrax	**12F6** 6 x size 16 Optical LuxCis 6 x size 16 special electrical contacts	**F12C** (high grade thermoplastic) 12 x size 16 Optical LuxCis
13C1 6 x size 20 contacts 4 x size 15 or 16 contacts 2 x size 12 contacts 1 x size 5 contacts	**13P1** 6 x size 20 contacts 4 x size 15 or 16 contacts 2 x size 12 contacts 1 x size 5 Power	**14** 14 x size 15 or 16 contacts	**17** 14 x size 20 contacts 3 x size 12 contacts
20C1 19 x size 20 contacts 1 x size 5 contacts	**20P1** 19 x size 20 contacts 1 x size 5 Power	**22** 16 x size 20 contacts 6 x size 15 or 16 contacts	**22V** 16 x size 20 contacts 6 x size 16 contacts
			
25P1 24 x size 22 contacts 1 x size 8 Power	**25Q1** 24 x size 22 contacts 1 x size 8 Quadrax	**28** 22 x size 22 contacts 6 x size 15 or 16 contacts	**30** 30 x size 20 contacts
			
34 18 x size 22 contacts 16 x size 20 contacts	**40** 40 x size 22 contacts	**48** 48 x size 22 contacts	

INSERTS TABLE

EPXB range of inserts is used for the Quick Multipin connectors.

			Contact Size & Type									
Serie	Inserts	Total Contacts	22 Signal	20 Signal	15 or 16 Medium Power or Coax	16 LuxCis Fiber optic	16 Power in Fiber Optic cavity	12 Medium Power or Coax	8 Power	8 Quadrax or Twinax	5 Coax or Triax	5 Power
EPXB & QM	C3	3									3	
	P3	3										3
	3Q3	3								3		
	06	6										
	10Q2	10		8						2		
	12F6	12				6	6					
	F12C	12				12						
	13C1	13		6	4			2			1	
	13P1	13		6	4			2				1
	14	14			14							
	17	17		14				3				
	20C1	20		19							1	
	20P1	20		19								1
	22	22		16	6							
	22V	22		16	6							
	25P1	25	24						1			
	25Q1	25	24							1		
	28	28	22		6							
	30	30		30								
	34	34	18	16								
	40	40	40									
	48	48	48									

HOW TO ORDER QM SHELL

QM	B	P	N	00

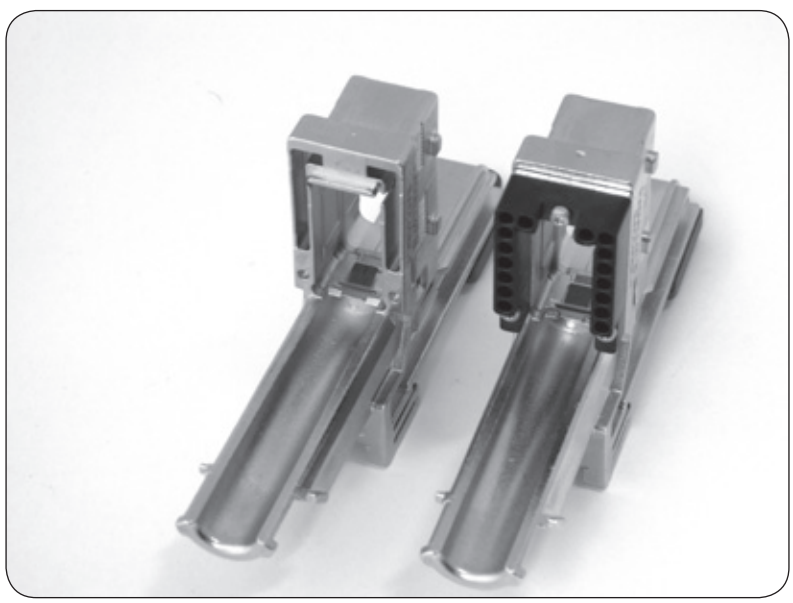
Series

Shell Size
B: Insert size B

Product Type
P: Plug
R: Receptacle
W: Plug with ground block [1]
Z: Receptacle with ground block [1]

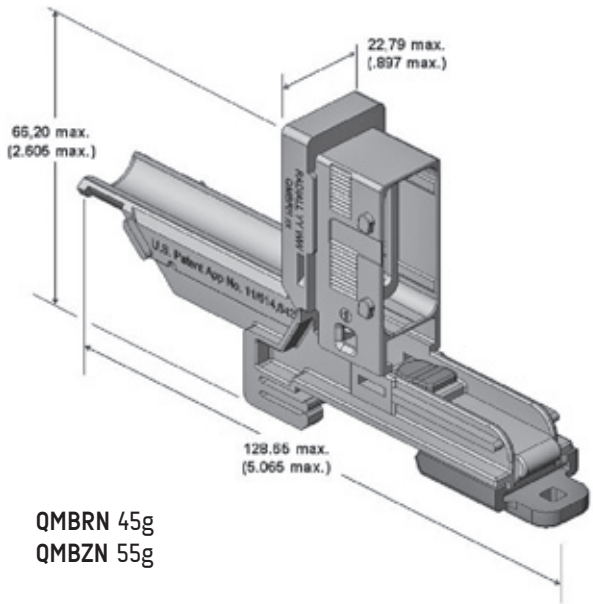
Finish
N: Nickel plating

Polarisation
00: delivered without polarizing keys
Delivered with polarizing keys not installed (without code)
******: delivered with polarizing keys installed according to code (see table 2 on page 2-14)



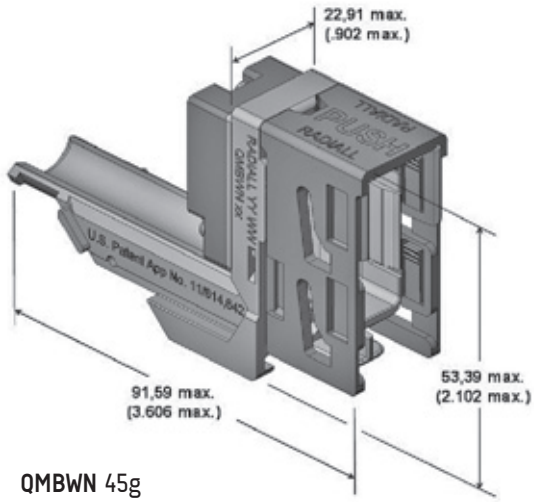
SINGLE SHELL DIMENSIONS

Receptacle



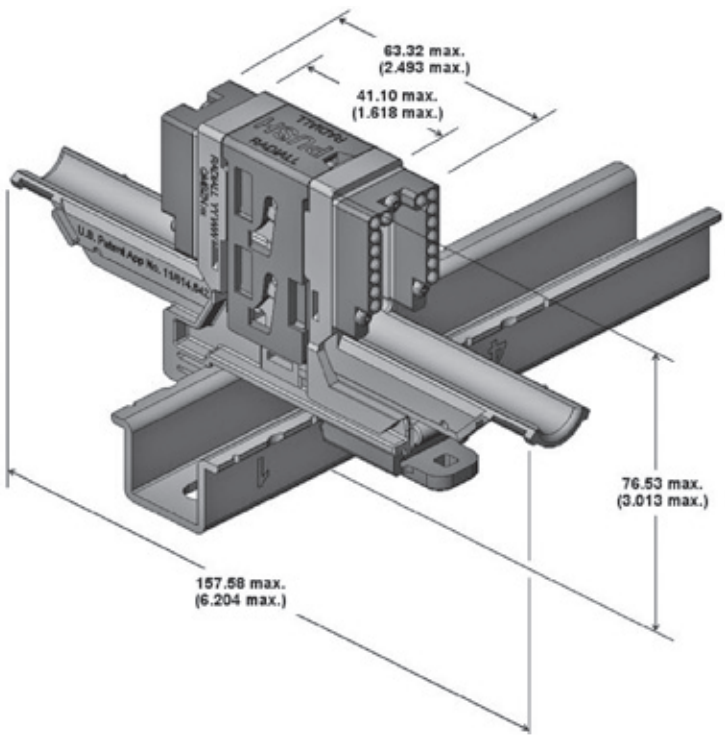
QMBRN 45g
QMBZN 55g

Plug



QMBWN 45g
QMBPN 35g

MATED SHELL DIMENSIONS



HOW TO ORDER QM MOUNTING DEVICE

QM	U	04	A	N

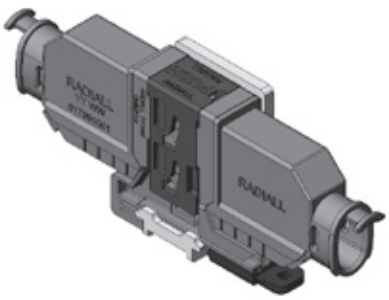
Series

Mounting Device
L: L-Bracket
U: Single sided rail
H: Double sided rail

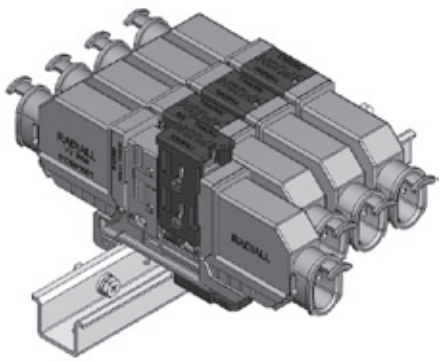
Number of connector position [1]
(Refer to tables on pages 2-17 to 2-19 for code selection)

Mounting device material
A: Aluminium

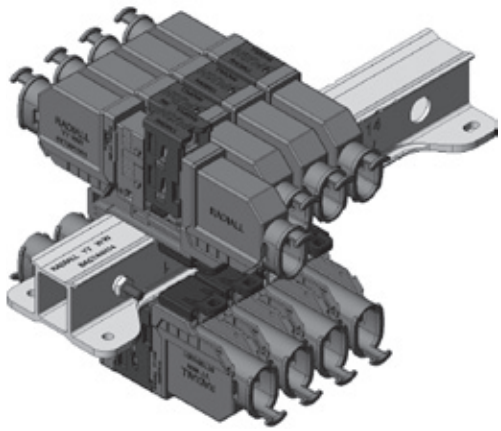
Finish
N: Nickel



L-Bracket



Single sided rail

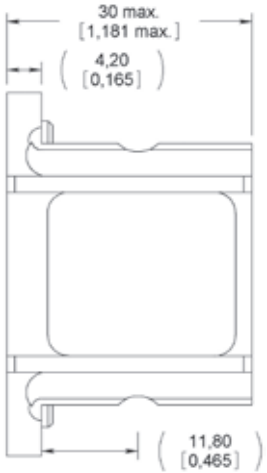


Double sided rail

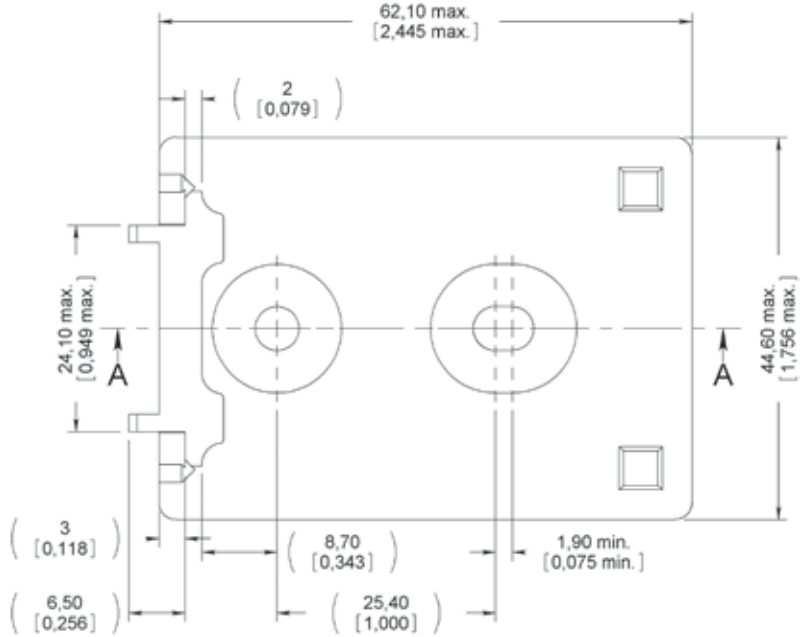
NOTE:
(1) Other lengths can be developed on demand, please consult us.

MOUNTING DEVICE DIMENSIONS L-Bracket

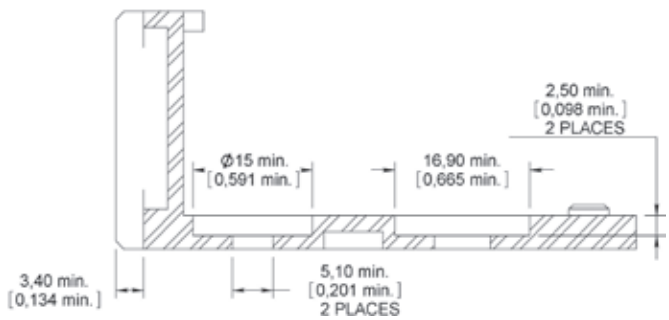
Side view



Top view



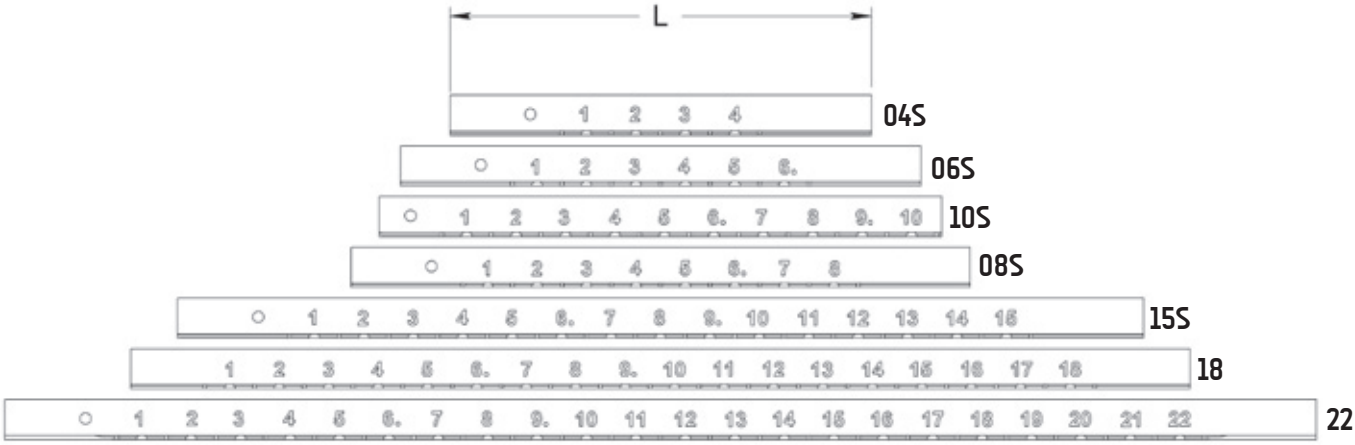
Section A – A



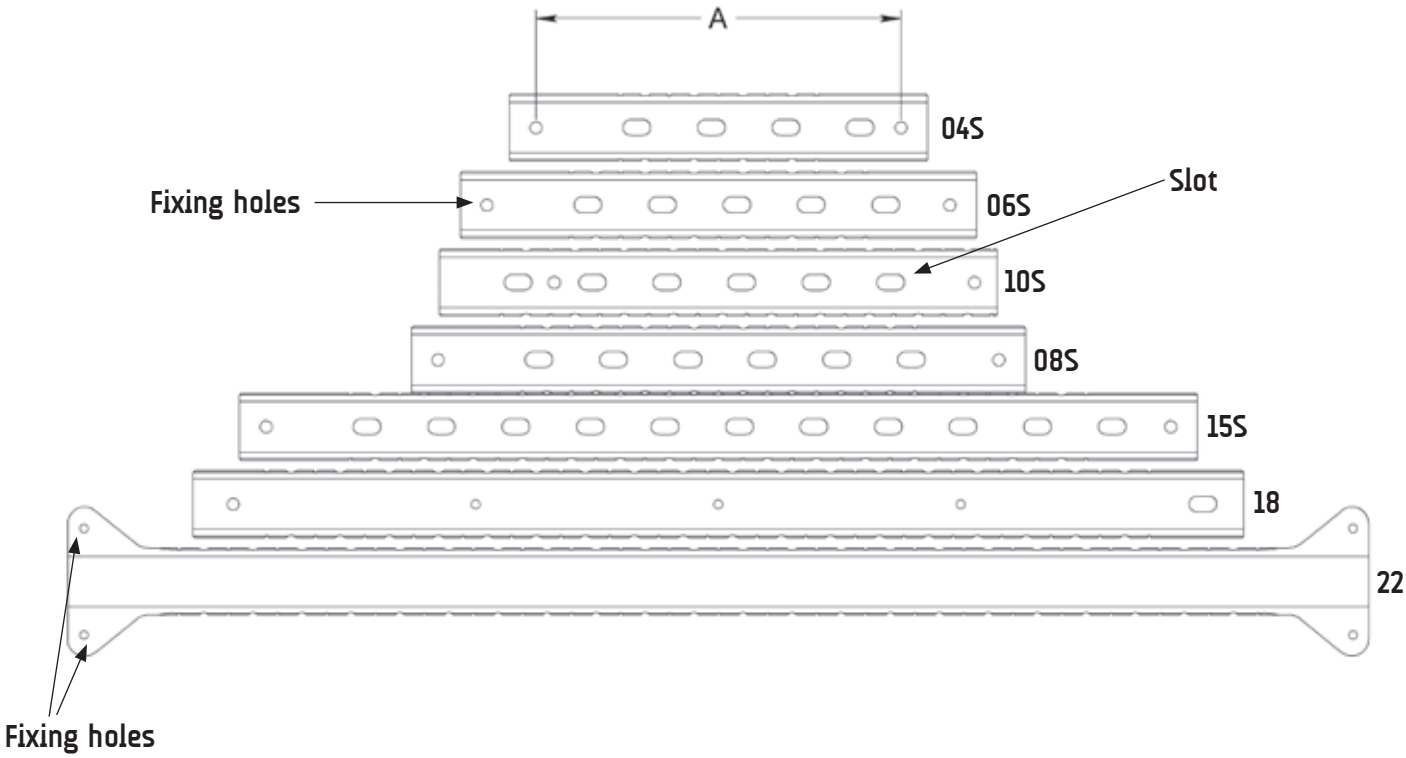
Part number	Length mm (inch)	Weight g (oz)
01	65.60 (2.45)	30 (1.05)

QM RAIL GLOBAL RANGE FOR SINGLE SIDED MOUNTING DEVICE

Side view



Top view



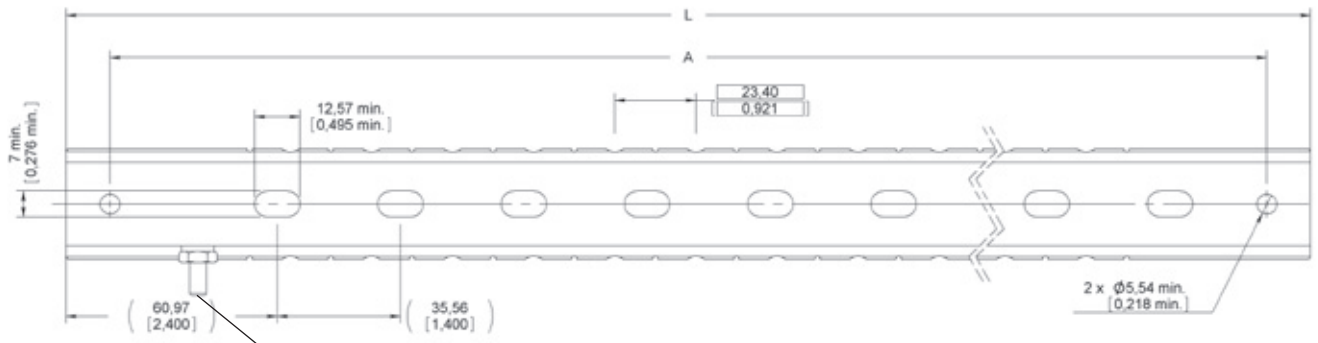
RADIALL
The next conneXion

MOUNTING DEVICE DIMENSIONS

04S, 06S, 08S, 10S & 15S SINGLE SIDED RAIL

The first variable (2 digits) after the basic number designates the quantity of connector positions.
The second variable designates options on the rail of alternative slots.

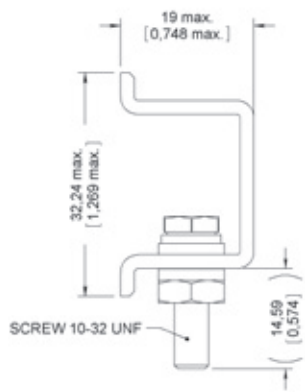
Top view



Ground stud

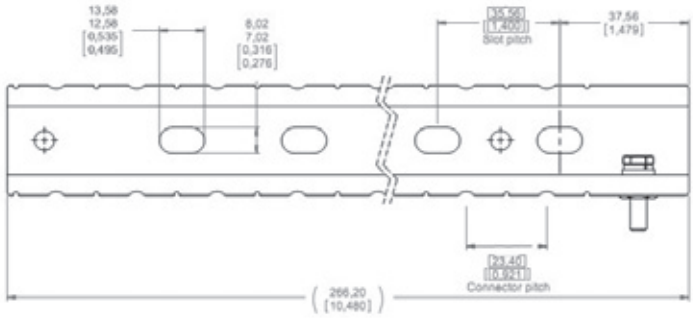
Side view

Cross section



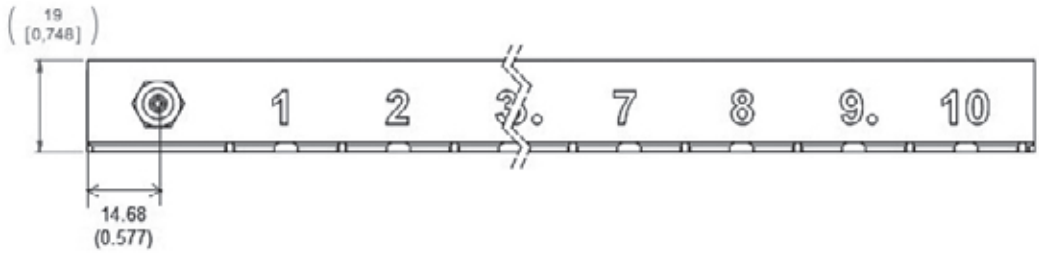
04S, 06S, 08S, 10S & 15S SINGLE SIDED RAIL

Top view 10S



Only exception to the S option on single sided rail serie: 10S rail has a ground stud at the right side.

Side view 10S



RAIL CONFIGURATION

Table - For part number with slots and grounds studs per rail configuration.

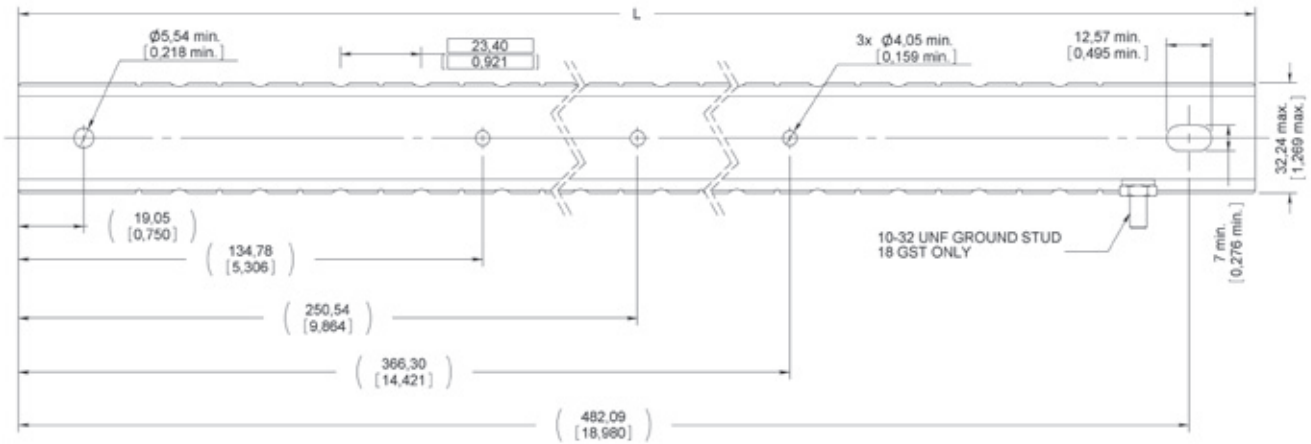
Part number	Length mm (inch)	A distance between fixing holes mm (inch)	Number of slots	Number of ground studs	Weight g (oz)
04S	199.60 (7.86)	175 (6.86)	4	1	85 (3)
06S	246.40 (9.70)	221 (8.70)	5	1	90 (3.20)
08S	293.10 (11.54)	268 (10.54)	6	1	100 (3.53)
10S	266.19 (10.48)	200 (7.895)	6	1	100 (3.53)
15S	457.20 (18)	432 (17)	11	1	220 (7.76)

MOUNTING DEVICE DIMENSIONS

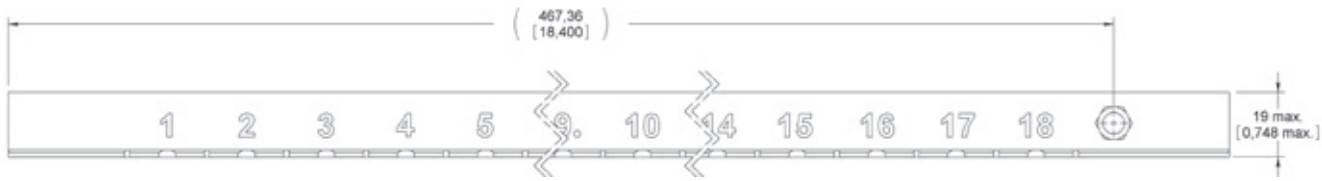
18 SINGLE SIDED RAIL

The first variable (2 digits) after the basic number designates the quantity of connector positions.

Top view 18



Side view 18



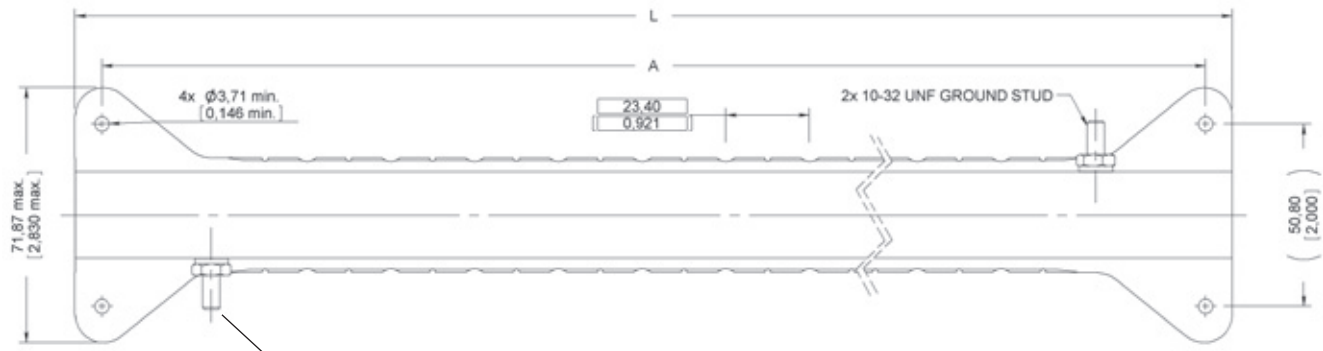
RAIL CONFIGURATION

Part number	Length mm (inch)	Number of slots	Number of ground studs	Weight g (oz)
18	501.40 (19.74)	9	1	170 (6)

22 SINGLE SIDED RAIL

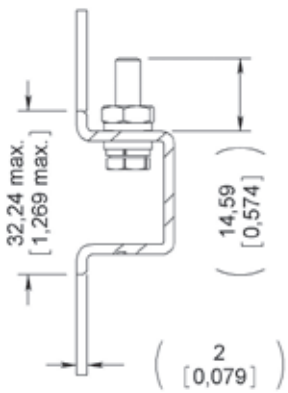
The first variable (2 digits) after the basic number designates the quantity of connector positions.

Top view

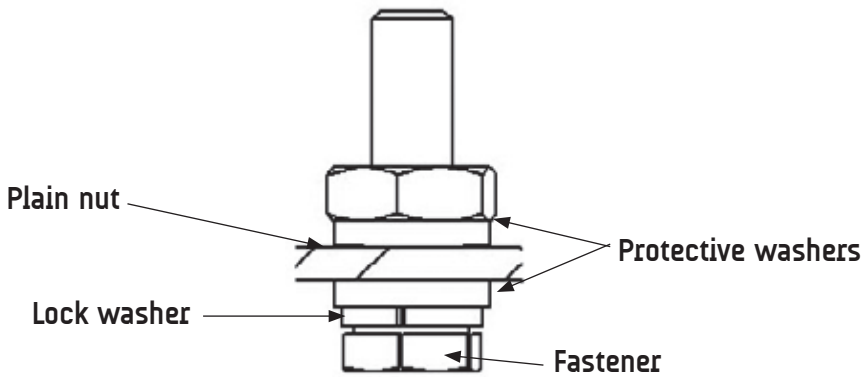


Ground stud

Side view



Cross section



Ground stud stack-up detail

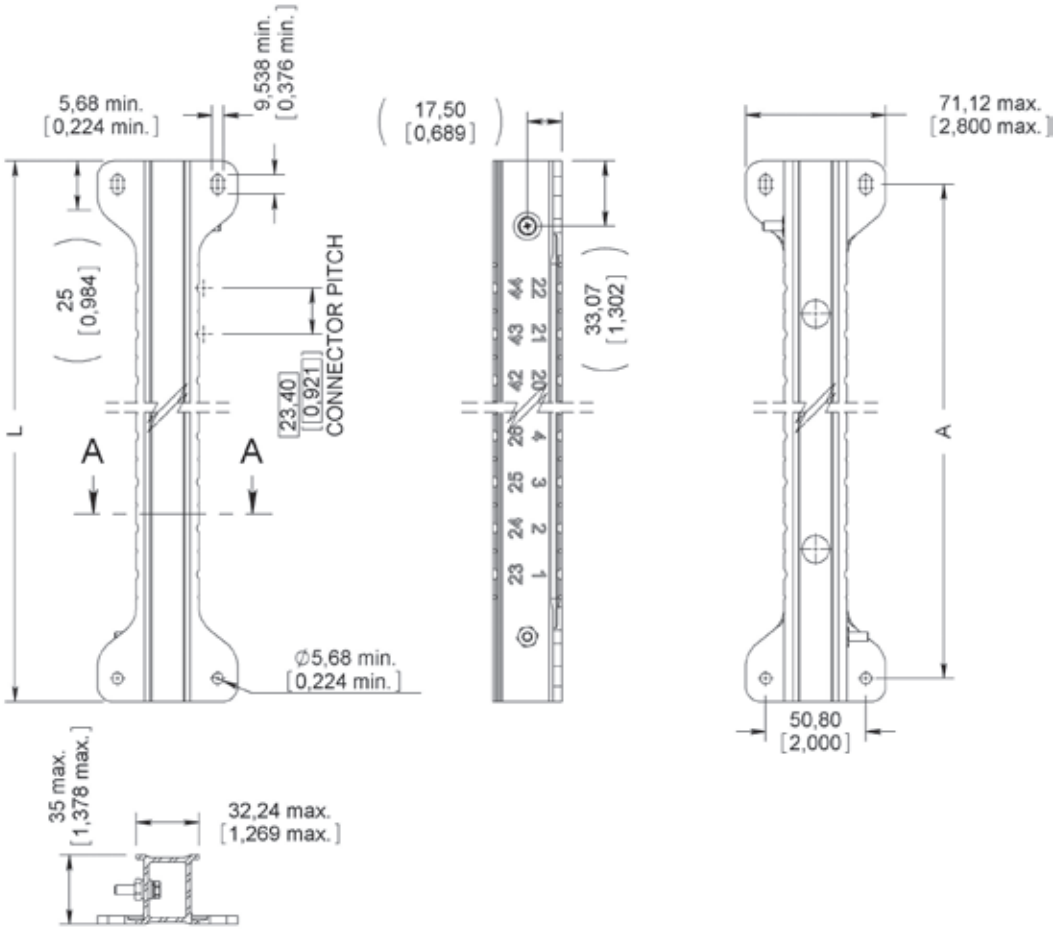
RAIL CONFIGURATION

Part number	Length mm (inch)	A distance between fixing holes mm (inch)	Number of slots	Number of ground studs	Weight g (oz)
22	620.80 (24.44)	606 (23.85)	none	2	230 (8.11)

MOUNTING DEVICE DIMENSIONS

DOUBLE SIDED RAIL

The first variable (2 digits) after the basic number designates the quantity of connector positions.



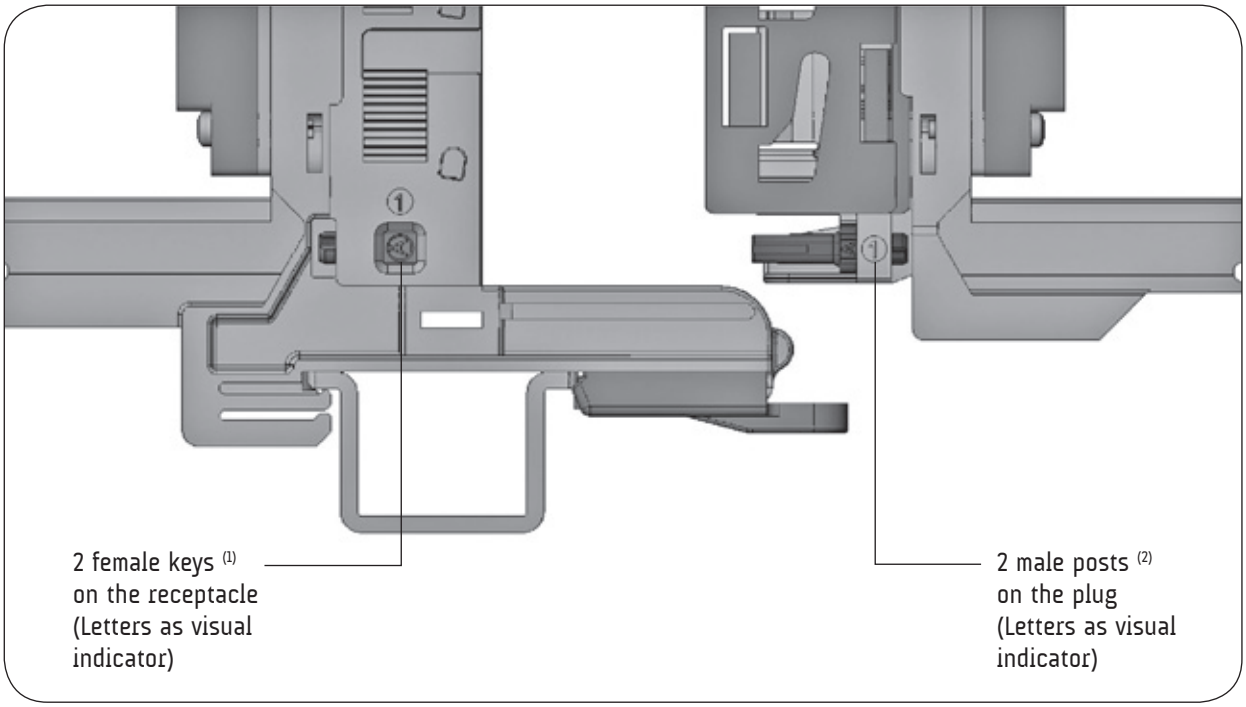
RAIL CONFIGURATION

Table - For part number with grounds studs per rail configuration.

Part number	Length mm (inch)	A distance between fixing holes mm (inch)	Number of ground studs	Weight g (oz)
14	270 (10.63)	246 (9.69)	2	263 (9.27)
16	293 (11.55)	269 (10.61)	2	279 (9.84)
18	317 (12.47)	292 (11.53)	2	298 (10.51)
20	340 (13.39)	316 (12.45)	2	313 (11.04)
22	363 (14.31)	340 (13.37)	2	332 (11.71)
24	387 (15.23)	363 (14.29)	2	351 (12.38)
26	410 (16.15)	386 (15.21)	2	370 (13.05)
28	434 (17.07)	410 (16.13)	2	388 (13.68)
30	457 (18)	433 (17.06)	2	405 (14.28)
32	480 (18.92)	457 (17.98)	2	424 (14.95)
34	504 (19.84)	480 (19.90)	2	443 (15.62)
36	527 (20.76)	503 (19.82)	2	462 (16.29)
38	551 (21.68)	527 (20.74)	2	481 (16.96)
40	574 (22.60)	550 (21.66)	2	499 (17.60)
42	597 (23.52)	574 (22.58)	2	519 (18.30)
44	620 (24.44)	597 (23.21)	2	540 (19.04)

EASY READING OF POLARIZATION CODE

Polarization code is added at the end of the Part Number and can be seen on the polarization keys as shown below.
Caution: read the polarization code according to the Part Number marking on the connector and not up-side-down.



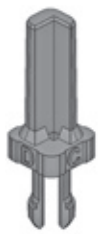
	RECEPTACLE		PLUG	
Coding device				
	View shows A & D	View shows C & B	View shows A & B	View shows C & D

Table 2: the 16 possible codings for polarization code:

Key position	A	A	A	A	B	B	B	B	C	C	C	C	D	D	D	D
Key position	A	B	C	D	A	B	C	D	A	B	C	D	A	B	C	D

NOTES:
(1) Polarizing keys are intended for use on receptacle, use plier 617954020 to remove.
(2) Polarizing posts are intended for use on plug, use plier 617954020 to remove

SIGNAL & POWER CRIMP CONTACTS

Contact size	Wire size	Type	Part number full plated	Part number selectively plated	Crimping tool	Positioner	Selector	Ins / ext tool	Type of tool
22	22	Pin	**617200**	**617200100**	**282281** M225520/2-01	**282970** M22520/2-23	4	**282522** (M81969/14-01)	**Plastic**
	24	Socket	**617300**	**617300100**			3		
	26						3		
22 reduced crimp barrel	28	Pin	**617201** (1)	n/a			5		
	30	Socket	**617301** (1)	n/a			4		
20	20	Pin	**617221**	**617221100**		**282971** M22520/2-08	7	**282886** (M81969/01-02)	**Metal**
	22	Socket	**617320**	**617320100**			6		
	24						5		
20 reduced crimp barrel	22	Pin	**617224001** (1)	n/a			4		
	24	Socket	**617324001** (1)	n/a			3		
	26						3		
16	16	Pin	**617240**	**617240100**	**282291** M22520/1-01	**282972** M22520/1-02	6	**282515** (M81969/14-03)	Plastic
	18	Socket	**617340**	**617340100**			5		
	20						4		
16 reduced crimp barrel	20	Pin	**617241** (1)	n/a			5		
	22	Socket	**617341** (1)	n/a			5		
	24						4		
16 for ground block	20	Pin	**617221050**	n/a	**282281** M22520/2-01	**282581015** M22520/2-11	7	**282886** (M81969/14-02)	Metal
		Socket	**N/A**	n/a					
16 for optical electrical insert	16	Pin	**617235003** (2)	n/a	**282291** M22520/1-01	**282581013**	6	**282515** (M81969/14-03)	Plastic
	18						5		
	20						4		
16 reduced crimp barrel for optical electrical insert	20	Pin	**617235002** (1 & 2)	n/a			5		
	22						5		
	24						4		
12	12	Pin	**617250**	**617250100**	**282291** M22520/1-01	**282972** M22520/1-02	8	**282549004** (M81969/14-04)	Plastic
	14	Socket	**617350**	**617350100**			7		
	16						6		
8	8	Pin	**617291002** (3 & 4)	n/a	**R282600000** M22520/23-01 + Die set **R282650000** M22520/23-02	**282588**	n/a	**282549001**	Metal
	10	Socket	**617391002** (3 & 4)	n/a					
5	8	Pin	**617280** (3 & 5)	n/a		**282557020**	n/a	282946 **(M81969/28-01)**	Metal
	10	Socket	**617390** (3 & 5)	n/a		**282557021**			
5	12	Pin	**617260001** (3 & 5)	n/a	**282613**	**282586003**	6		
		Socket	**617370001** (3 & 5)	n/a					
5	16	Pin	**617260002**	n/a			n/a		
		Socket	**617370002**	n/a					

NOTES:

(1) When smaller wire sizes are used on contacts with reduced crimp barrel, the wire won't provide sealing to the grommet. If sealing is required, please contact Radiall.

(2) Electrical contacts for optical insert are always pin contacts (hermaphrodite).

(3) In order to make these contacts environmental, it is necessary to add a sealing boot. Please contact us for additional information.

(4) These power contacts can be used in power inserts only (25P1)

(5) These power contacts can be used in power inserts only (P3, 13P1, 20P1)

COAXIAL CRIMP CONTACTS

Contact size	Cable type	Type	Environmental Part number	Non Environmental Part number	Ins / ext tool	Type of tool
15-16	RG174-RG179 RG316	Pin	**617130**		282512	Metal
		Socket	**617030**			
15-16	RG178	Pin	**617131**			
		Socket	**617031**			
15-16	GORE/AXON P812817 FILECA F1703-134 FILOTEX SP132868	Pin	**617132**			
		Socket	**617032**			
15-16	RG178 DT	Pin	**617133**			
		Socket	**617033**			
15-16	UT .047	Pin	**617135**			
		Socket	**617035**			
12	UT.085-RG405	Pin	**617160**		**282549004** (M81969/14-04)	Plastic
		Socket	**617060**			
5	RG58-RG141	Pin	See note 1	**617101**	**282946** (M81969/28-01)	Metal
		Socket	See note 1	**617001**		
5	RG142-RG223 RG400	Pin	**617102001**	**617102**		
		Socket	**617002001**	**617002**		
5	RG174-RG316 RG188	Pin	**617103001**	**617103**		
		Socket	**617003001**	**617003**		
5	RG178-RG196	Pin	See note 1	**617104**		
		Socket	See note 1	**617004**		
5	RG180	Pin	See note 1	**617105**		
		Socket	See note 1	**617005**		

CONTACTS FOR TWINAX & TRIAX CABLE

Contact size & type	Cable type	Type	Environmental Part number	Non Environmental Part number	Ins / ext tool	Type of tool
12 Triax	ECS0700	Pin	**617190010**		**282549004** (M81969/14-04)	Plastic
		Socket	**617090010**			
	M17/176-00002	Pin	**617190012**			
		Socket	**617090012**			
8 Triax	TENSOLITE 24473/03159X-2	Pin	**617165021**	**617165020**	**282549001** (M81969/28-03 or M81969/14-06)	Metal
		Socket	**617065021**	**617065020**		
	WHITMOR W26751575	Pin	**617165**	**617165001**		
		Socket	**617065**	**617065001**		
8 Twinax	ABS0386WF24 & TYCO 1726A1424A	Pin	**617165011**	**620165010**		
		Socket	**617065011**	**620065010**		
5 Triax	M17/176-0002	Pin	**617150001**	**617150**	**282946** (M81969/28-01)	Metal
		Socket	**617050001**	**617050**		
	PAN6421	Pin	**617152001**	**617152**		
		Socket	**617052001**	**617052**		

QUADRAX CONTACTS

Contact size	Cable type	Type	Environmental Part number	Non Environmental Part number	Extraction tool in metal
8	Ethernet cable ABS0972 & ABS1503	Pin	**617175011**	**620175010**	**282549001**
		Socket	**617075011**	**620075010**	
	TENSOLITE NF24Q100	Pin	**617175051**	**620175050**	
		Socket	**617075051**	**620075050**	
	JSFY02	Pin	-	**620179002**	
		Socket	-	**620079002**	
	JSFY18	Pin	**617175053**	**620175021**	
		Socket	**617075053**	**620075021**	

BMA CONTACTS

Contact size	Cable type	Type	Environmental Part number	Non Environmental Part number	Frequency range	Max VSWR	Insertion loss
8	SHF5 - SHF5M (1)	Pin (2)	**617171011**	**617171010**	DC-18 GHz	1,35	0.13 dB at max frequency (18 GHz)
	RG142	Pin (2)	**617171021**	**617171020**	DC-12.4 GHz	1,35	0.11 dB at max frequency (12.4 GHz)
	SHF2.4M (1) / UT.085 Harbour SS405 Times Tflex405	Pin (2)	**617171031**	**617171030**	DC-18 GHz	1,35	0.13 dB at max frequency (18 GHz)
	SHF5 - SHF5M (1)	Socket	**617071011**	**617071010**	DC-18 GHz	1,35	0.13 dB at max frequency (18 GHz)
	RG142	Socket	**617071021**	**617071020**	DC-12.4 GHz	1,35	0.11 dB at max frequency (12.4 GHz)
	SHF3 (1)	Socket	**617071041**	**617071040**	DC-18 GHz	1,35	0.13 dB at max frequency (18 GHz)
	SHF2.4M (1) / UT.085 Harbour SS405 Times Tflex405	Socket	**617071031**	**617071030**	DC-18 GHz	1,35	0.13 dB at max frequency (18 GHz)

Extraction tool **282549001** (M81969/14-06) for size 8 BMA contacts.

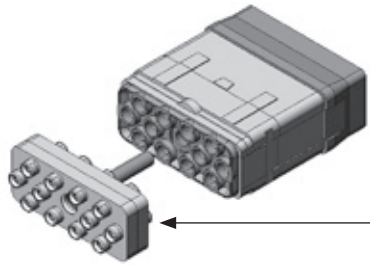
NOTES:
(1) The BMA contacts which can accommodate SHF cables requires a wiring done by Radiall .Please contact Radiall for information.
(2) Pin BMA can only be installed in modified EPXB Quadrax insert such as 3T3AP. Ex: EPXBE3T3APA

LUXCIS® FIBER OPTIC INSERTS AND TERMINI

This section includes all specific parts used to accommodate the LuxCis® termini in the EPX connector. Inserts dedicated to LuxCis® termini are made of plastic.

Pin insert

Socket insert



INSERT RANGE		EPXB (cavity A)	EPXB (cavity B)
Fiber optic : 6 or 12 LuxCis® termini	Pin	EPXBEF12CPA	EPXBEF12CPB
	Socket	EPXBEF12CSA	EPXBEF12CSB
Hybrid : 6 electrical contact and 6 FO LuxCis® termini	Pin	EPXBE12F6PA	EPXBE12F6PB
	Socket	EPXBE12F6SA	EPXBE12F6SB

As a standard, pin insert is installed in receptacle shell and socket insert in plug shell.

HERMAPHRODITE ELECTRICAL CONTACTS FOR HYBRID INSERTS

Hermaphrodite contacts which are neither male nor female have been developed so that any connector can be joined to any other connector of the same design.

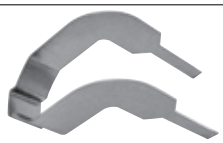
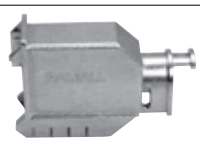
Contact size	Wire size	Max current Amps	Part number	Crimping tool	Positioner	Ins/Ext tool in plastic
16	16	10	617235003	282291 (M22520/1-01)	282581013	282515 (M81969/14-03)
	18	10				
	20	7.5				
	20	7.5	617235002			
	22	5				
	24	3				

OPTICAL PERFORMANCES

	Singlemode (UPC) 1310/1550nm	Singlemode / APC 1310/1550nm	Multimode (PC) 850nm/1310nm
Attenuation **- Mean** **- Standard deviation** (against a reference plug, IEC 61300-3-4 Method B)	0.15 dB 0.10 dB	0.20 dB 0.12 dB	0.10 dB 0.07 dB
Return loss (maximum low variation: IEC 61300-3-6)	> 50 dB	> 60 dB	> 20 dB

For further details on the LuxCis® Termini please consult Radiall's LuxCis® catalog or web site.

TOOLING AND ACCESSORIES

	Part number	Description
	617 954 041	Dust cap for plug shell
	617 954 042	Dust cap for receptacle shell
	617 980 024	Polarization key pin
	617 980 025	Polarization key socket
	282 668 001	Plier for polarizing post and key
	**282 521 004**	Right angle insert extraction tool
	F780 855 000	Hexagonal key 5/64 inch(2mm)/ flats for sleeve holder removal
	282 521 005	Insert extraction tool
	617 954 020	Insert handling cover
	282 515	Pastic insert extraction tool for Luxcis® termini (MIL M81 969/14-03)
	**617 991 001**	EMI backshell

NOTES

NOTES

NOTES

NOTES

NOTES

NOTES

NOTES